



# Mapping Hydrography in the ESPA

## The National Hydrography Dataset (NHD)

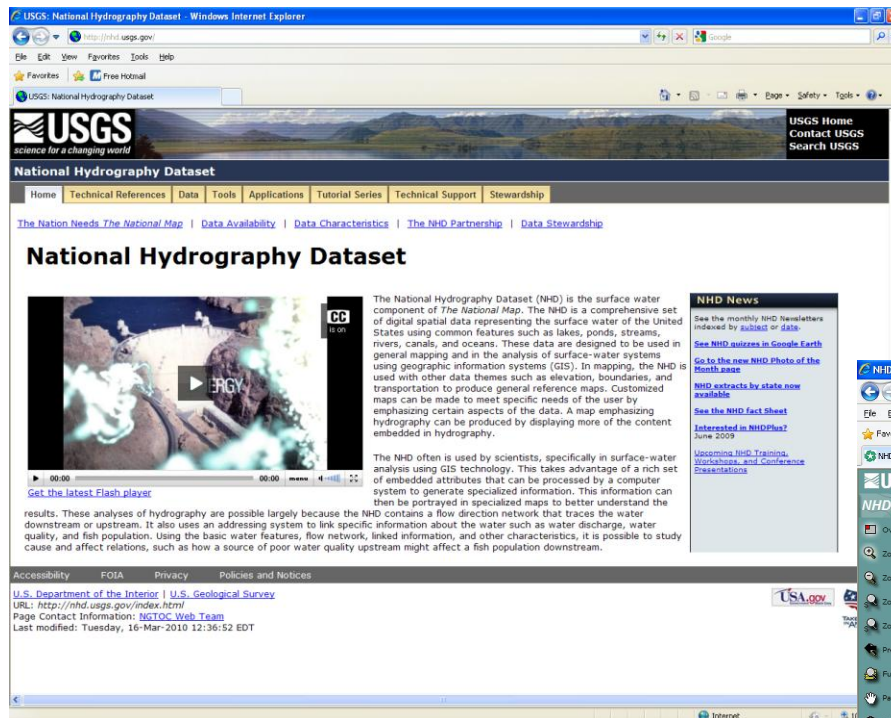
Presented by Wilma Robertson

Date April 7, 2010

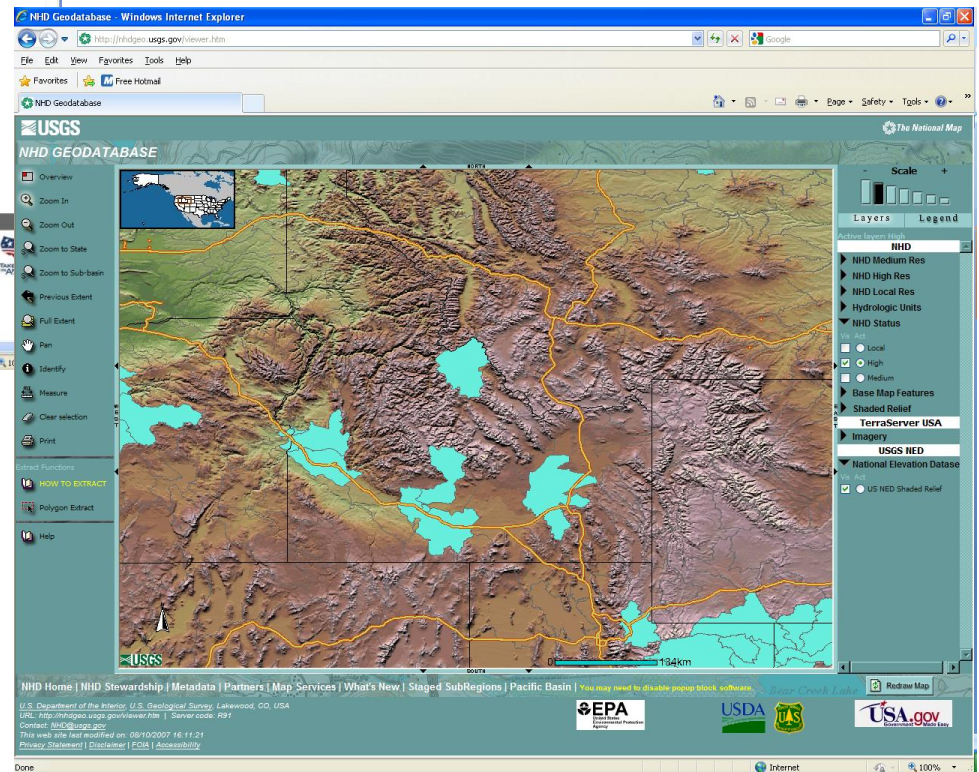




- Nationwide
- Maintained by the USGS
- High Resolution: 1:24,000



- Free to download
- Can be updated by Local Stewards



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## Idaho

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### MOU

Signed

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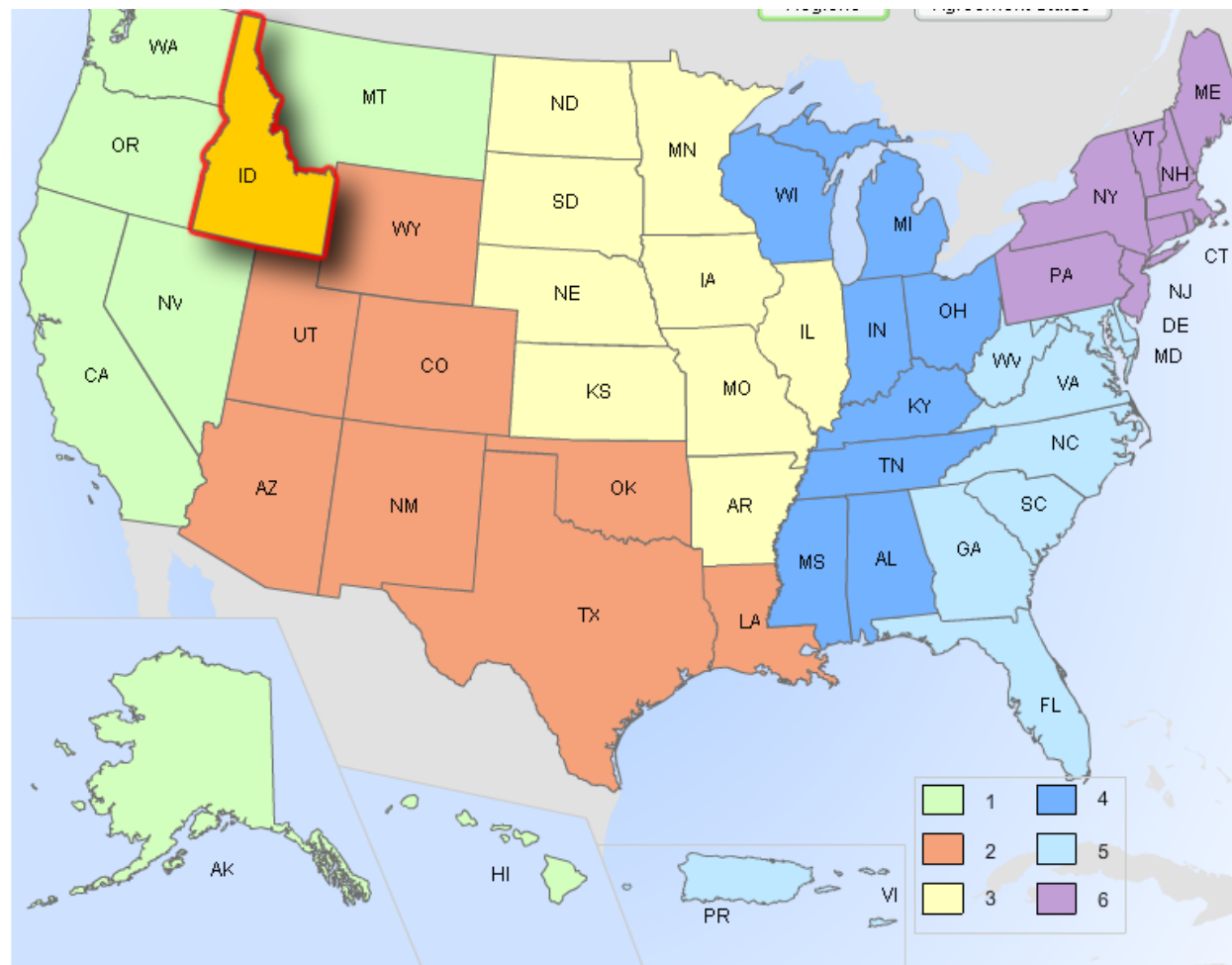
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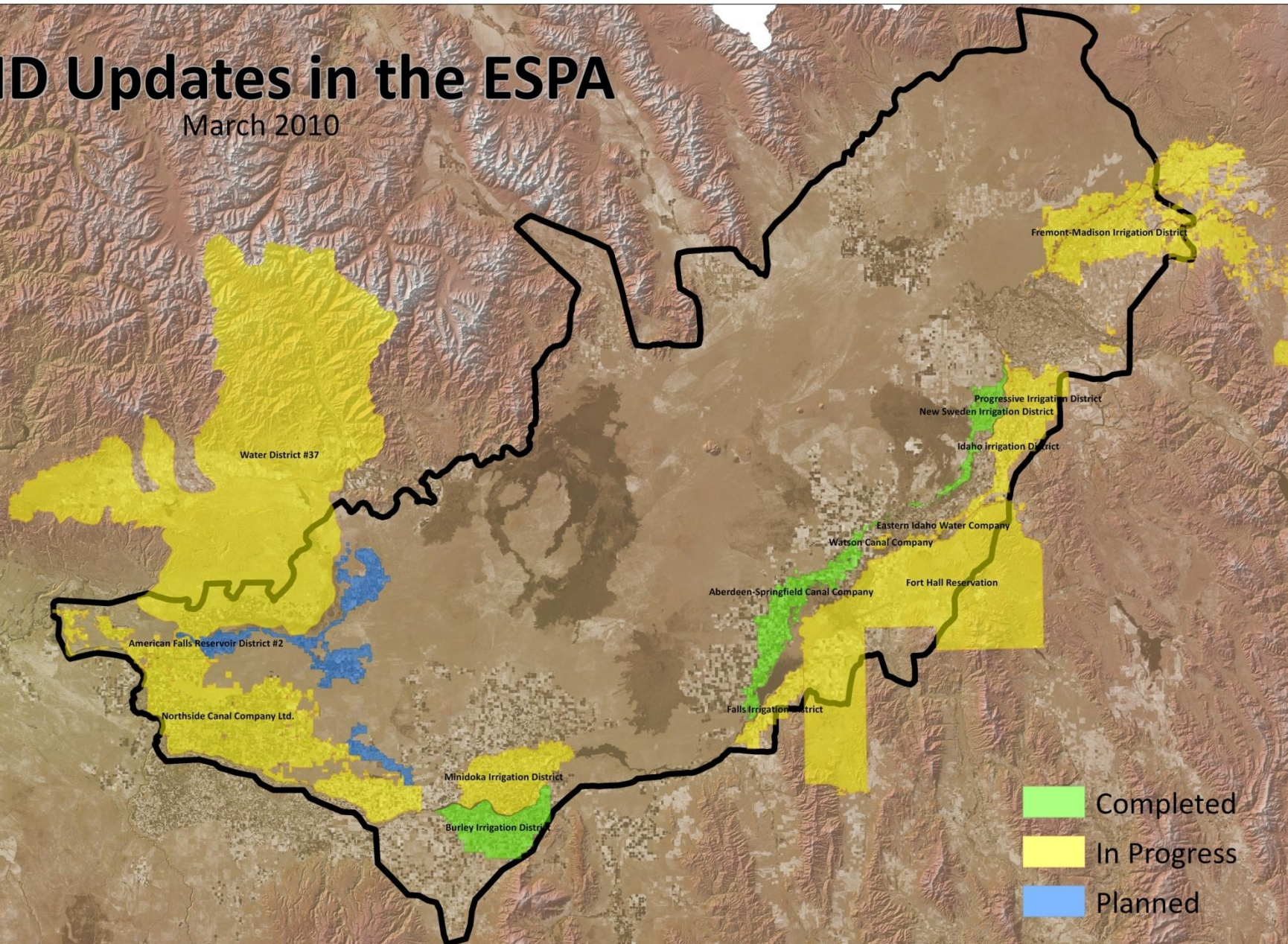


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## NHD Updates in the ESPA

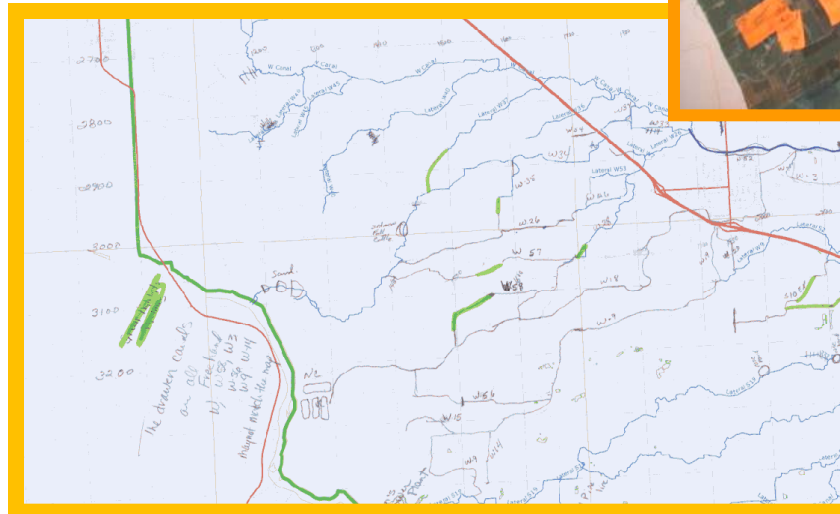
March 2010



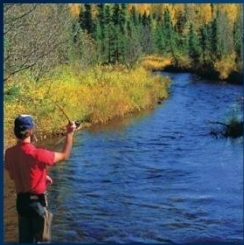


**Challenge:** getting information from local agencies

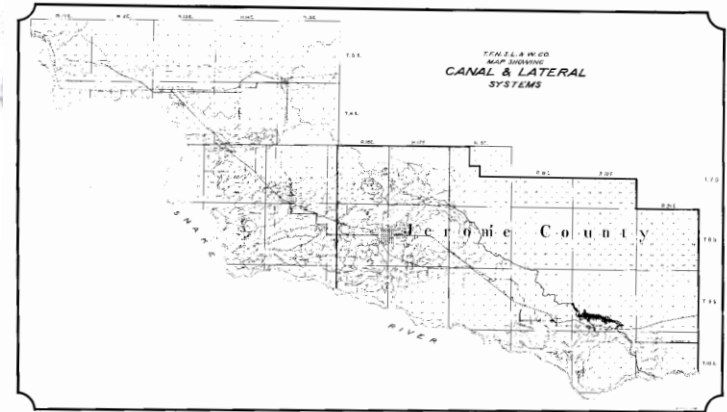
1. Paper maps  
with notes



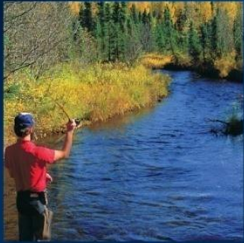
Example: Northside  
Canal Company Ltd.



## Northside Canal Company Ltd.

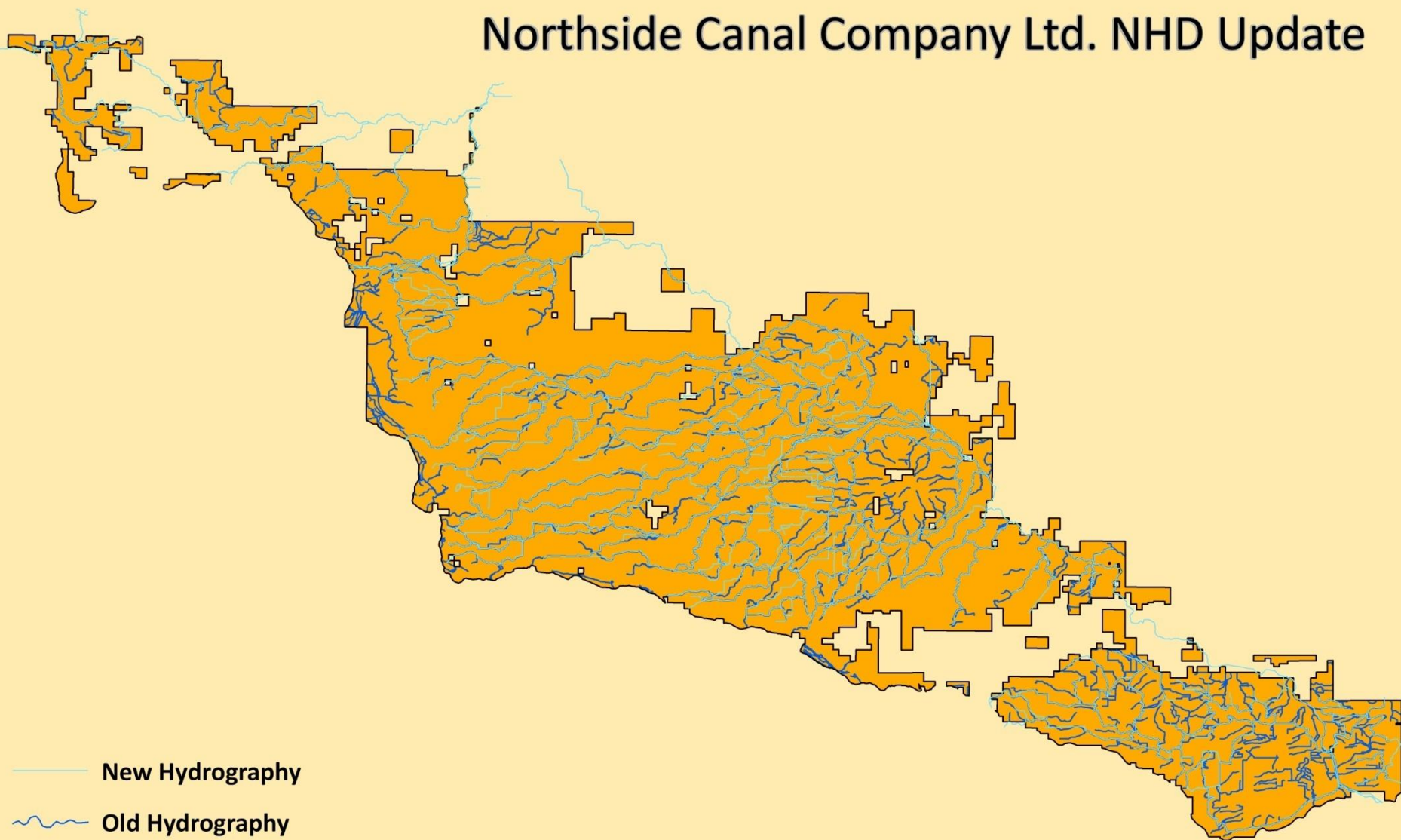


1. IDWR revised NHD using historical maps and NAIP Imagery
2. Maps reviewed by NSCC personnel
3. IDWR updates maps based on NSCC review and send back to NSCC
4. NSCC did final checks. IDWR uses data to update NHD





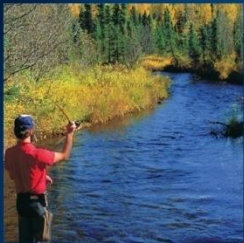
## Northside Canal Company Ltd. NHD Update



- New Hydrography
- ~ Old Hydrography
- ☐ Northside Canal Company Ltd.

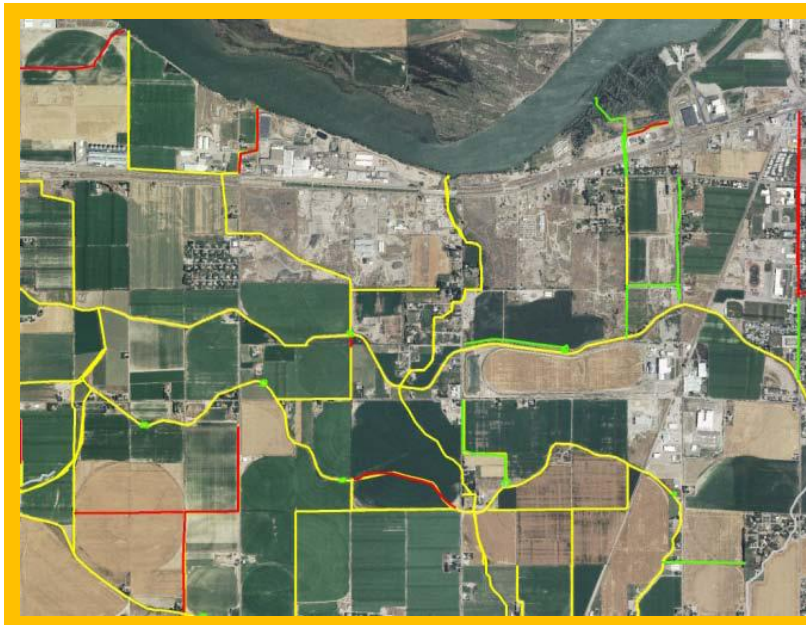






## 2. Customized Editing Tool

Example: Burley Irrigation District



Universal Input Form

Save Changes Cancel

FTYPE Canal or Ditch

EDIT\_ACTION

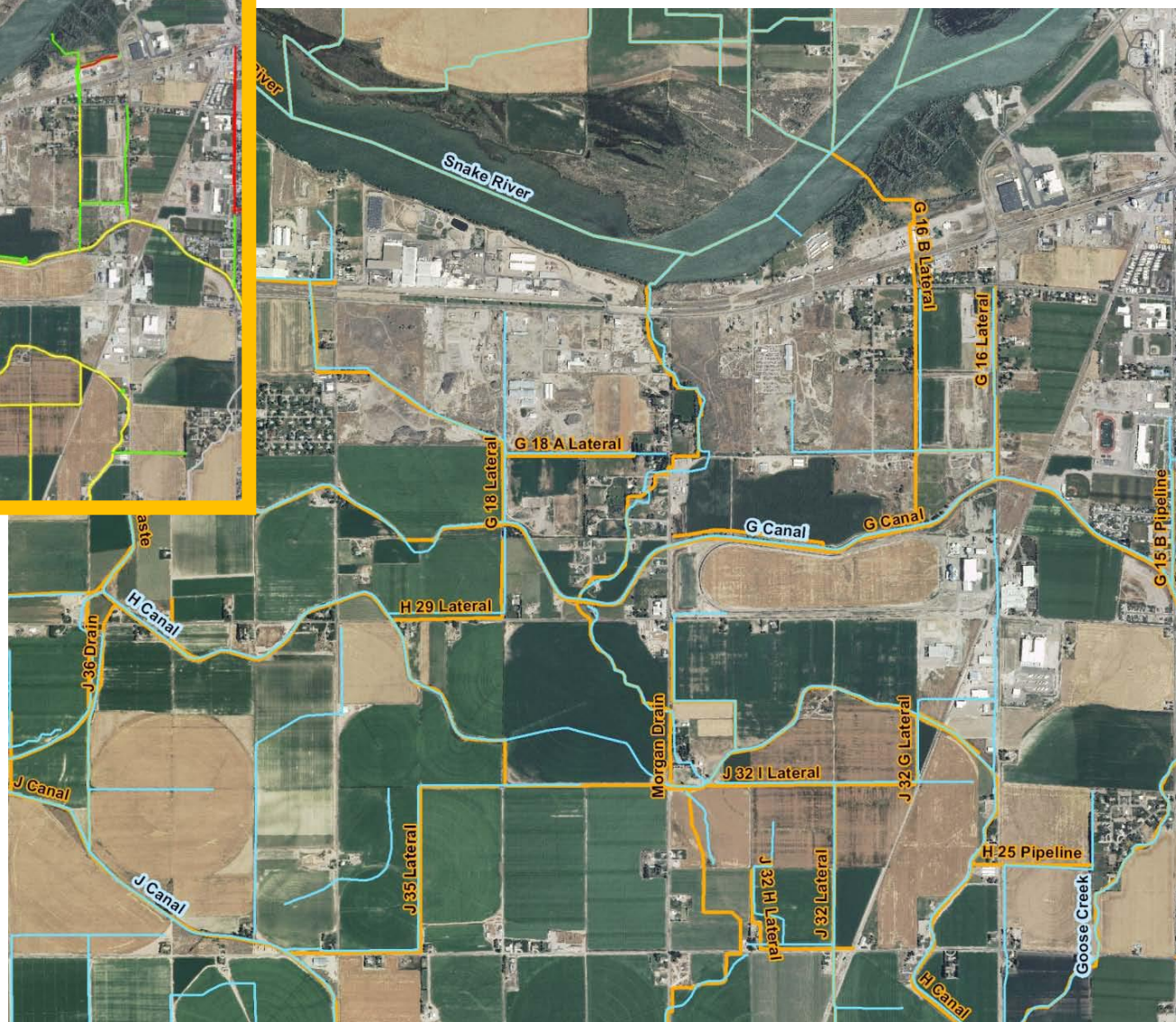
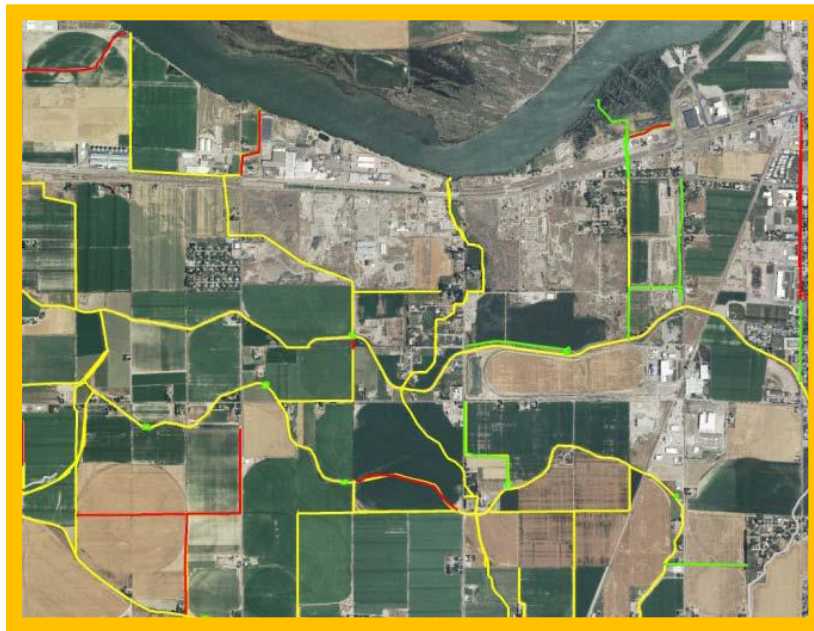
NAME Add New Feature  
Delete Feature  
Modify Feature

COMMENT

Shape\_Length 402.994285053856

- Add New Feature
- Delete Feature
- Modify Feature

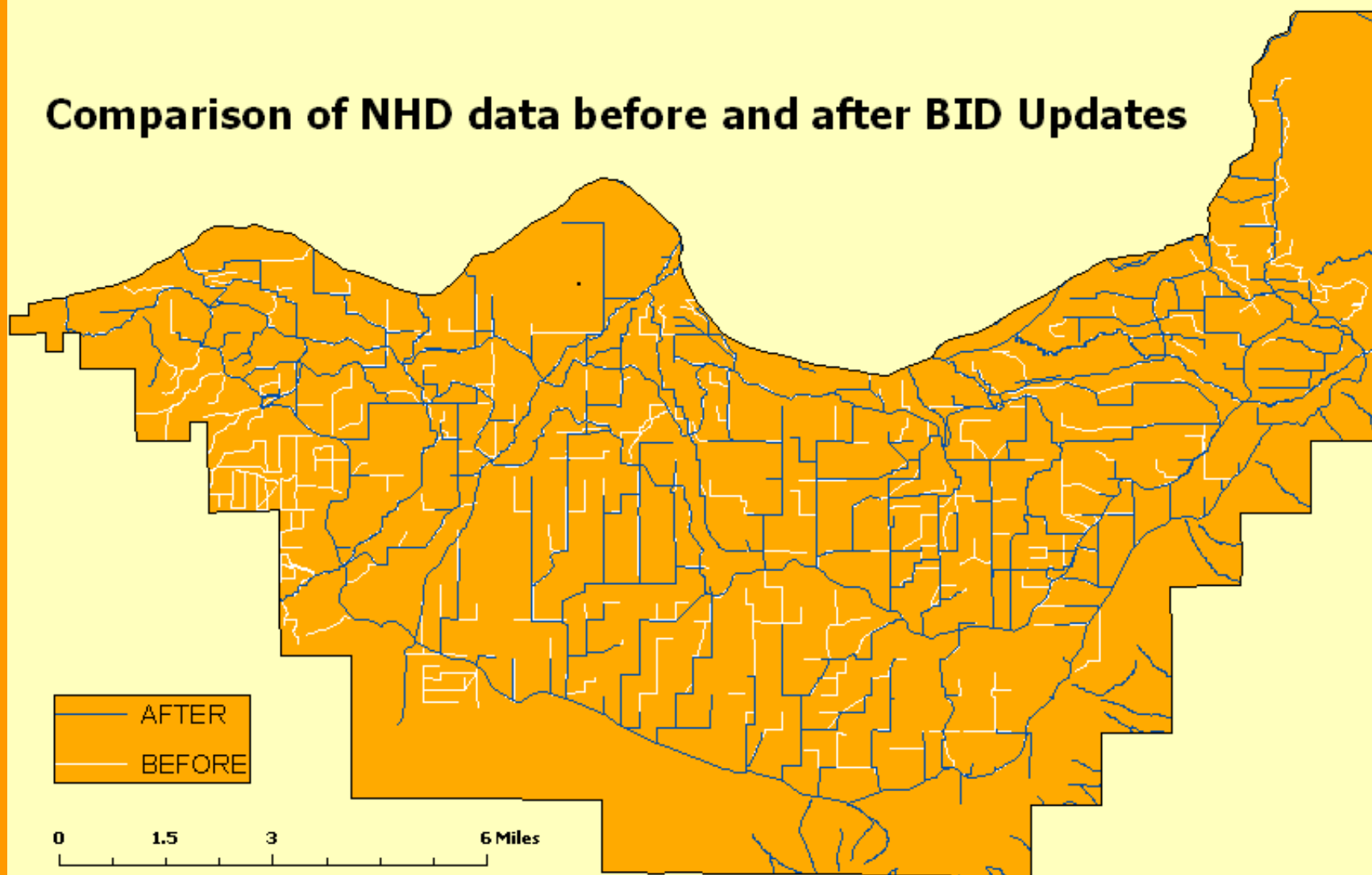




— before  
— after



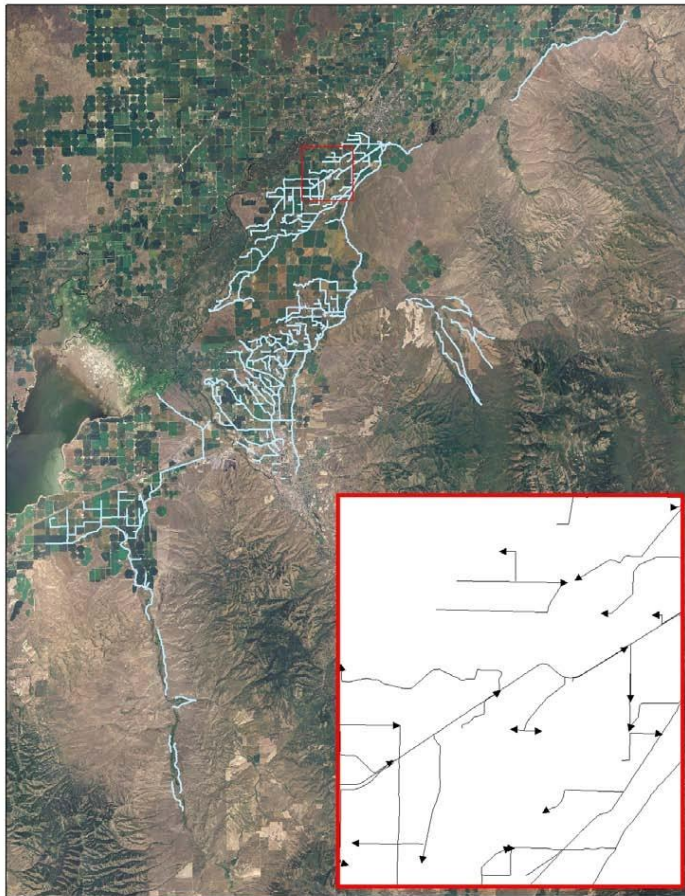
## Comparison of NHD data before and after BID Updates





**Challenge:** getting information from local agencies

### 3. Use GIS data provided by Agencies

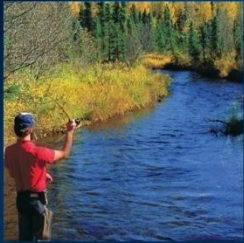


Aberdeen Springfield Canal Co.

Fort Hall Indian Reservation

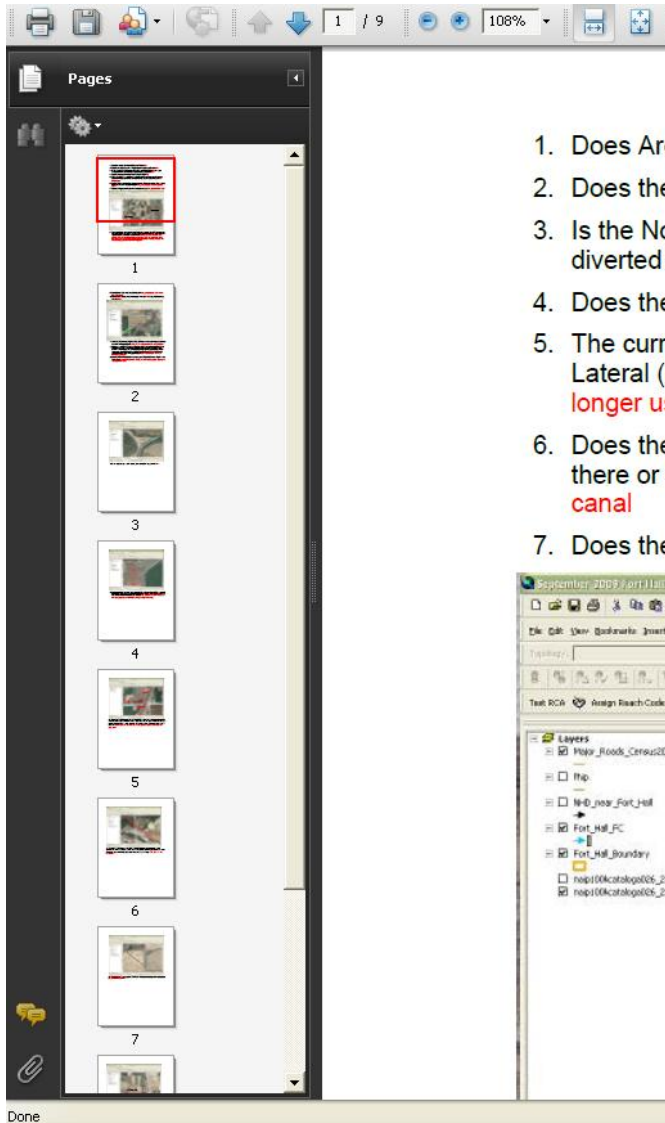
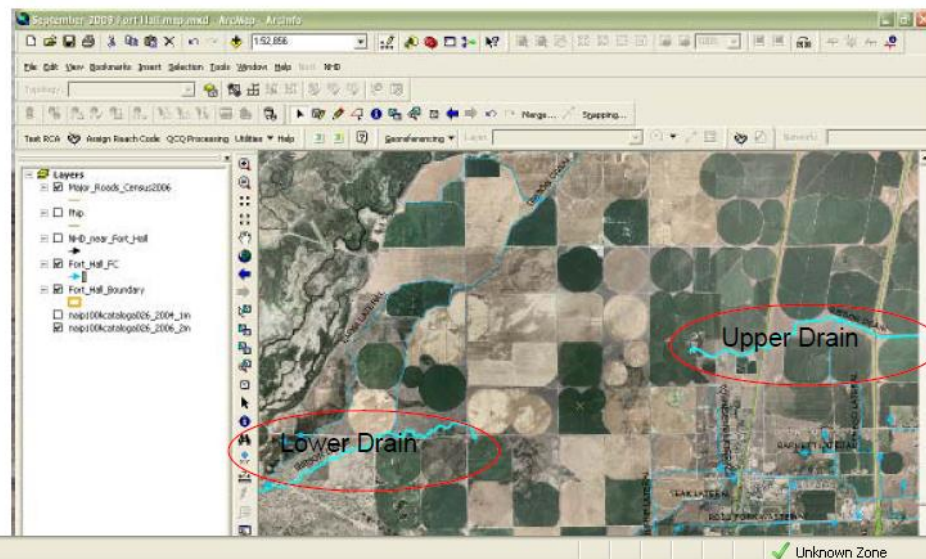
Data received from Shoshone-Bannock Tribal Water Resources

Required only minor edits by IDWR to update based on 2009 NAIP and fix flow directions and gaps



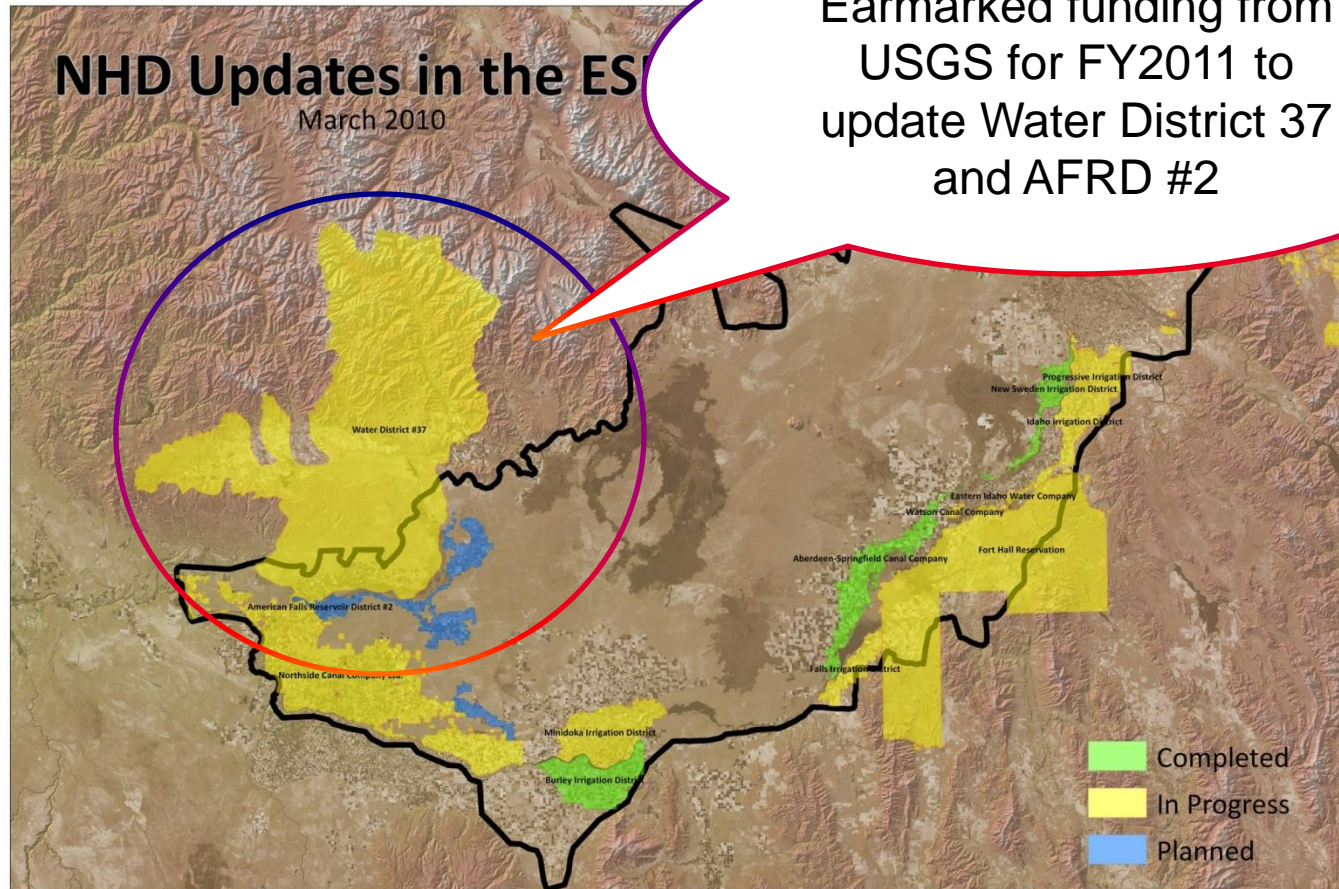
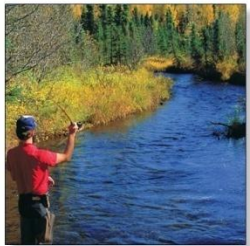
Communication with the Tribe to ensure map quality.  
Thank you Spence and Elese!

1. Does Arc Lateral flow into the Blackfoot River? **Yes**
2. Does the Nancy Lateral flow into, or out off the Blackfoot River? **into**
3. Is the Nome Lateral connected to the Fort Hall Main Canal? **Yes** Is water diverted from the Fort Hall Main Canal into Nome Lateral? **Yes**
4. Does the Nome Lateral drain into the North Canal? **No**
5. The current NHD dataset lists a "Nebo Lateral" that diverts out of the Nome Lateral (still close to the Fort Hall Main Canal). Does this lateral exist? **No longer used**
6. Does the Madge Lateral run over or under the Gibson Lateral? Is there a flume there or do the two laterals intersect? **Madge lateral goes under the Gibson canal**
7. Does the Trego Lateral drain into the Marlow Lateral? **No, Upper Gibson Drain**



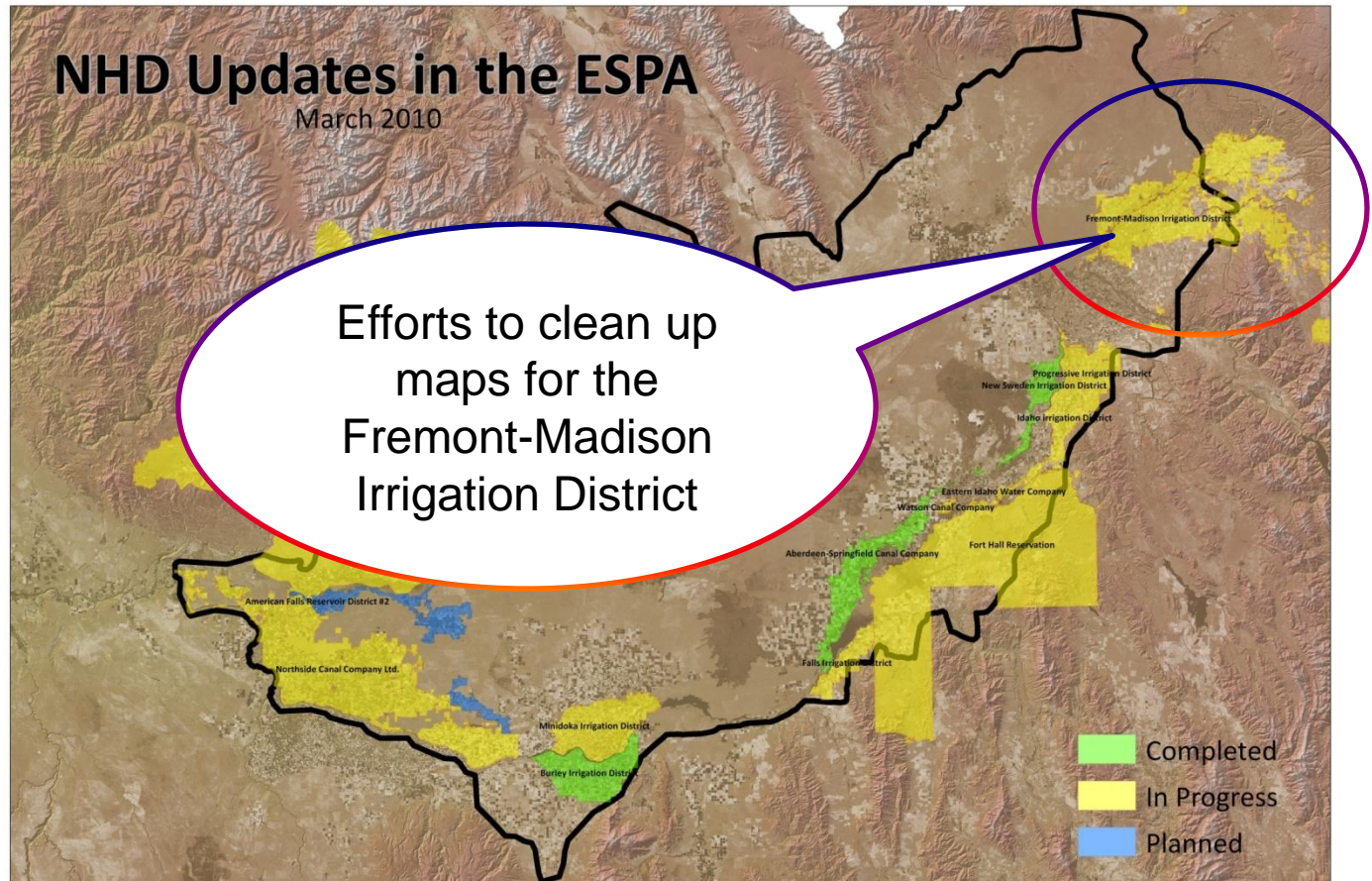
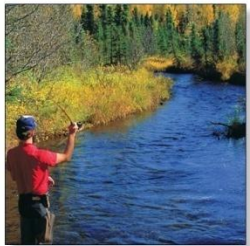


## Future Efforts

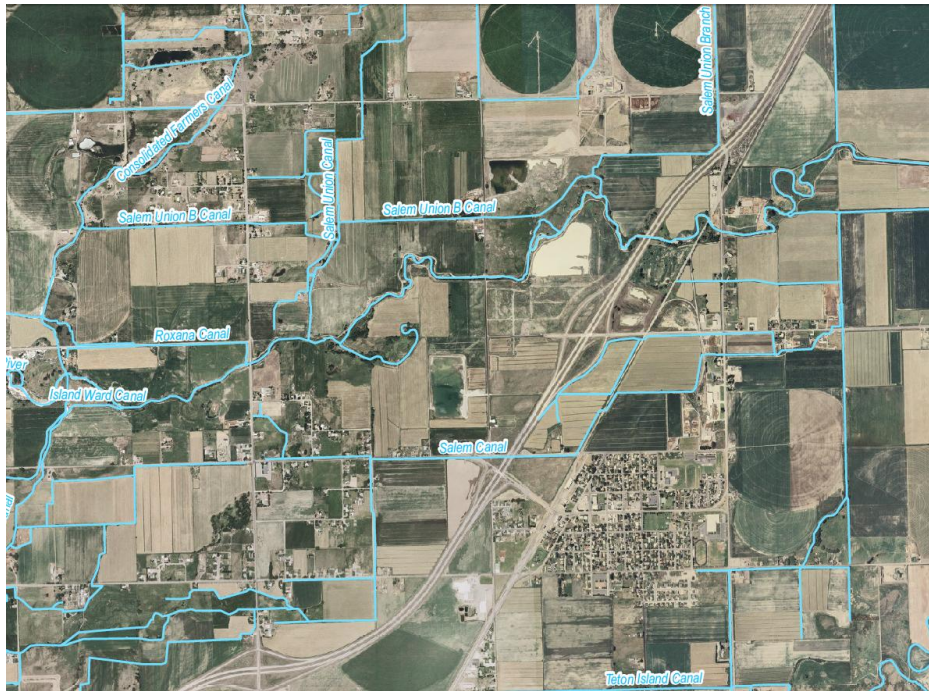




# Future Efforts

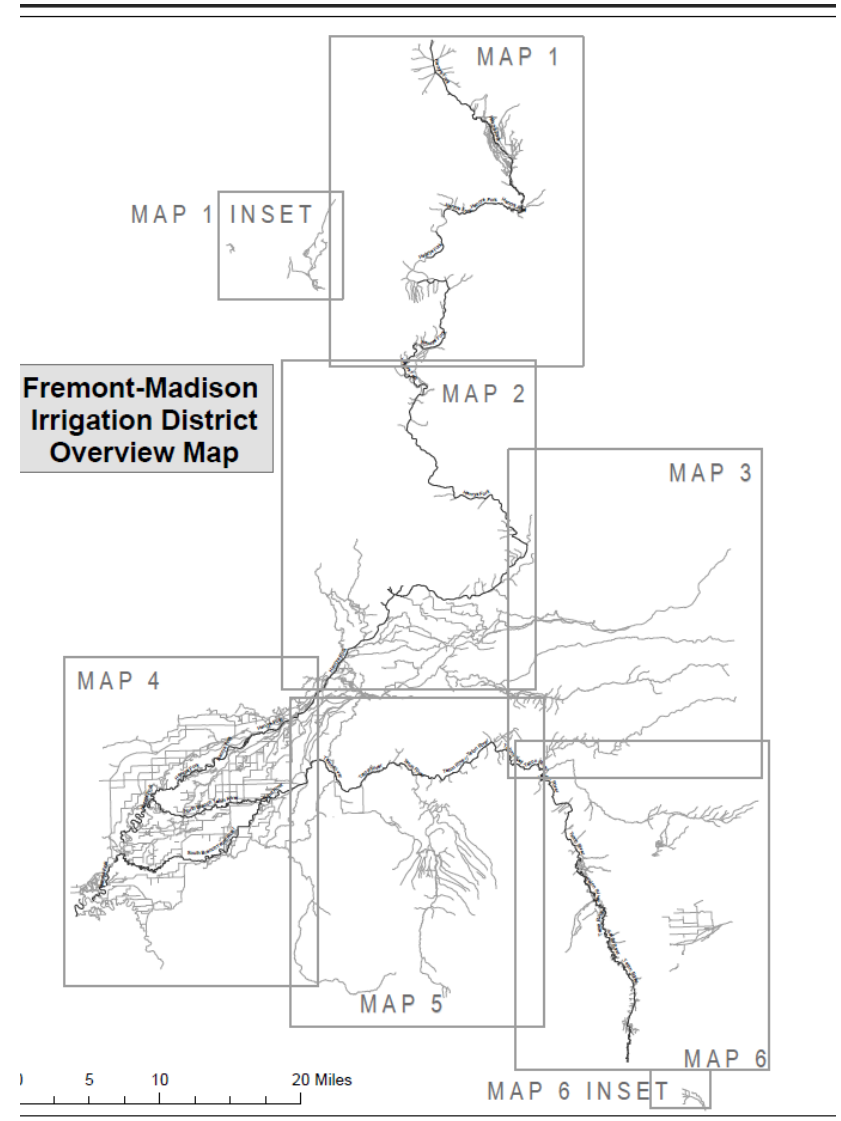






GIS data for main canals provided to IDWR by Fremont-Madison Irrigation District

IDWR revised entire Irrigation District based on this GIS data and 2006 NAIP



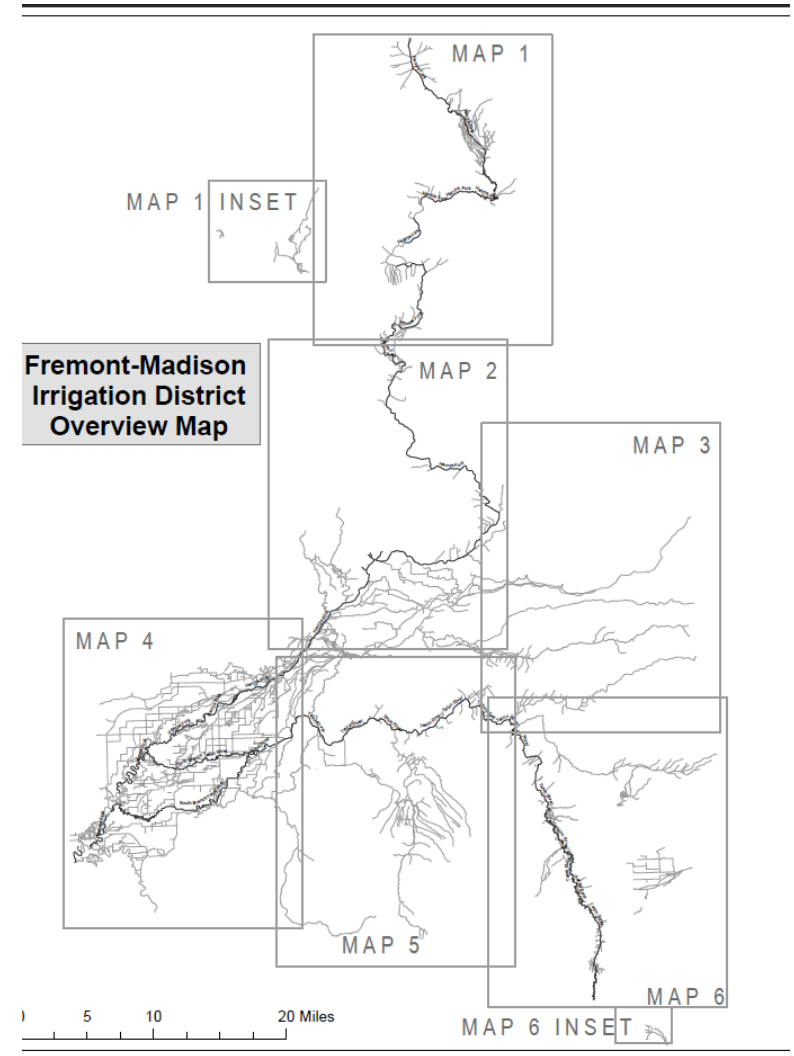
IDWR needs more local feedback on revised maps

We have contacted and are waiting for feedback from:

- Egin Bench
- Southeast Idaho Canal
- Teton Island Canals
- Teton Valley Area

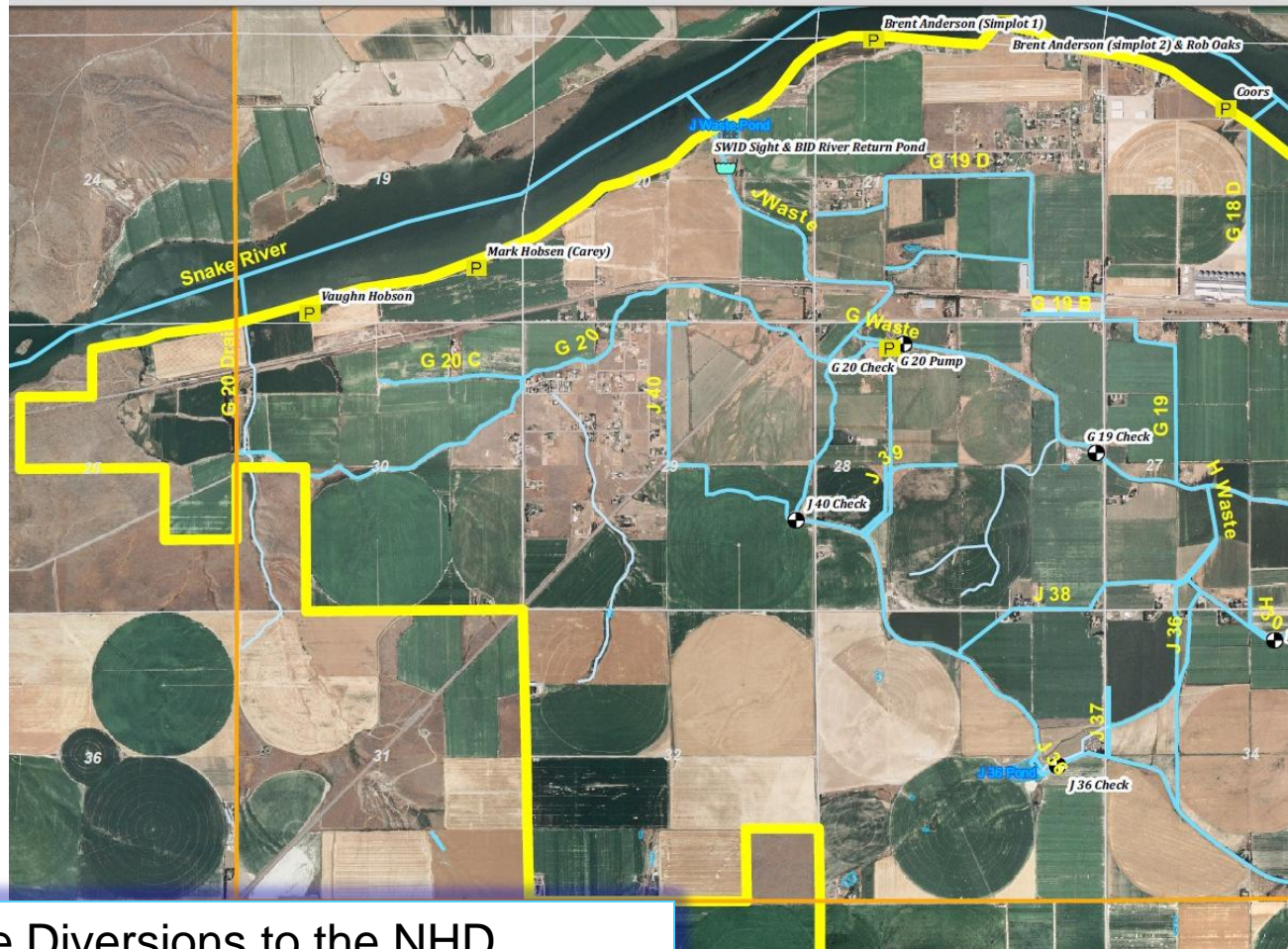
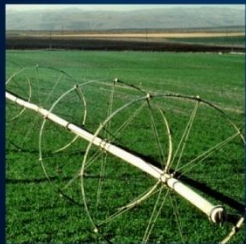
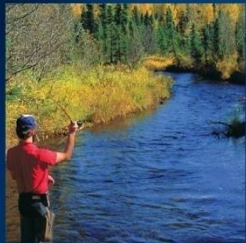
We have contacted and received feedback from:

- Upper Henry's Fork





# Future Efforts



Tie Diversions to the NHD



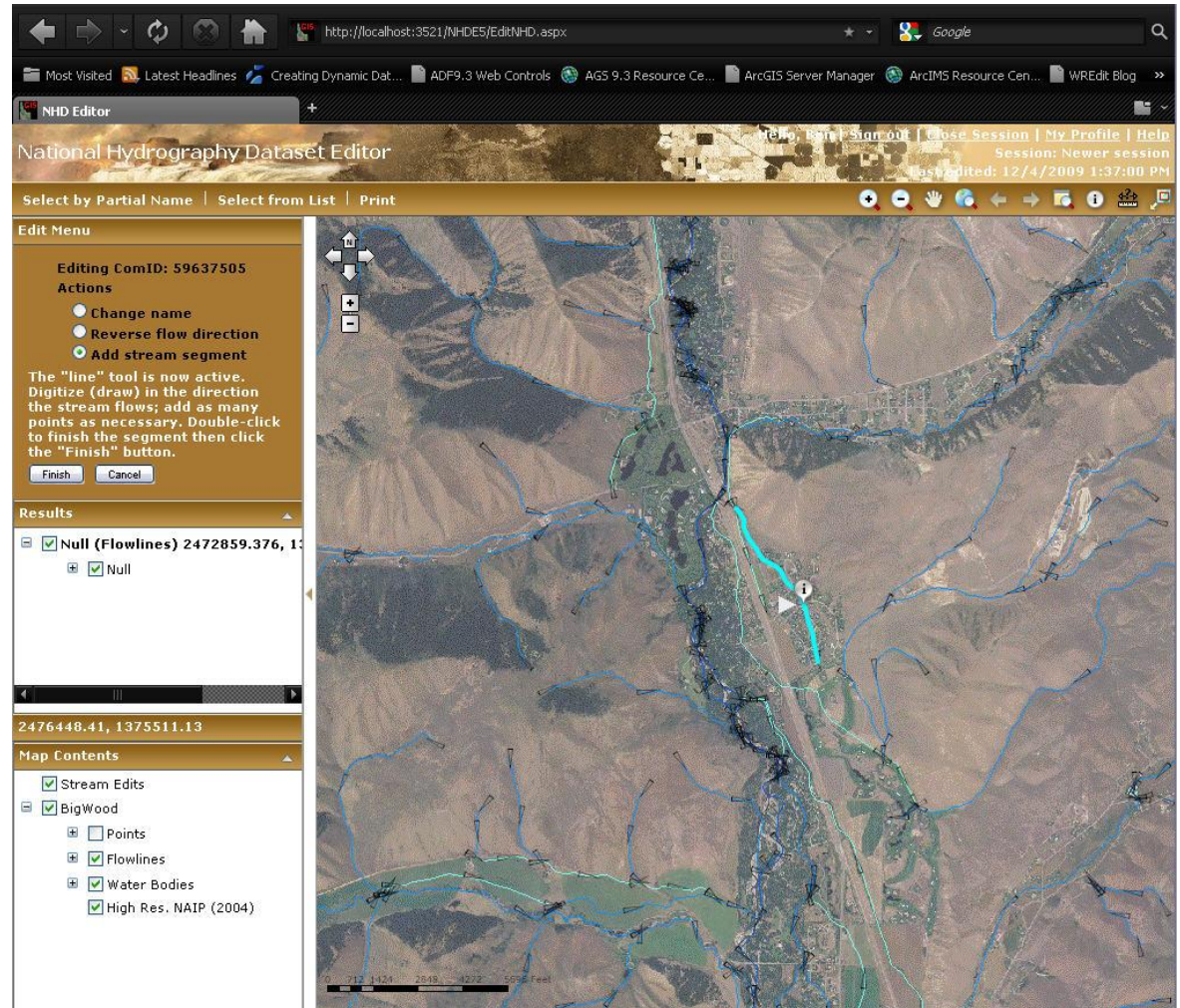
# Future Efforts

Internet application that allows users to submit edits to IDWR

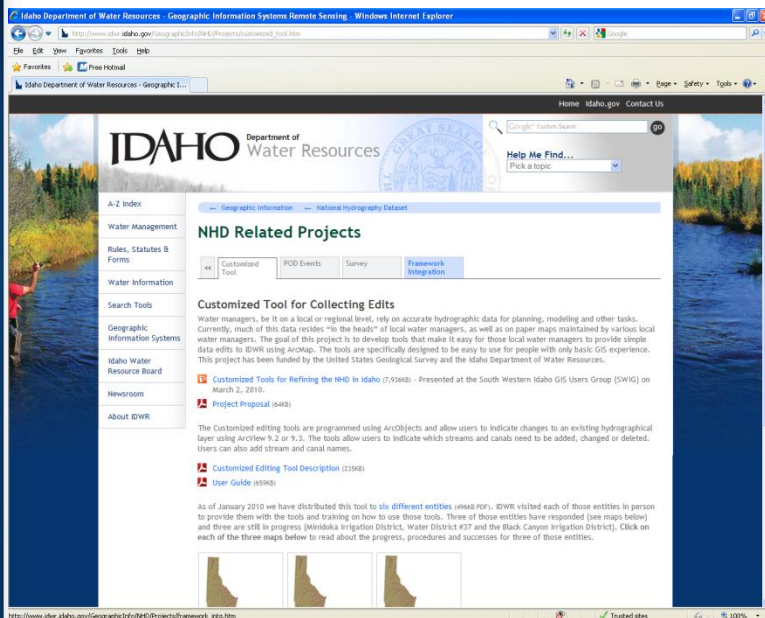
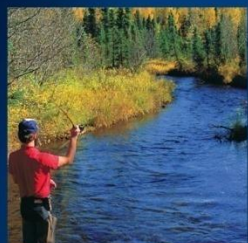
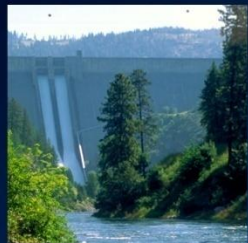
Next year this application will be expanded to also accept point and line event data

**Points:** Pumps, gates, dams, etc

**Lines:** canal lining, areas where seepage occurs.







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<http://www.idwr.idaho.gov/hydrography/>



# Questions?



## NHD Updates in the ESPA

March 2010

